quantitative PCR as control for contamination. PCR reactions were carried out in an MJ Research PTC-200 thermal cycler and the following cycling profile used: 95 °C for 45 seconds, 64 or 72 °C for 35 seconds, 82 °C for 30 seconds; for 40 cycles. The reaction mixtures were then fractionated by agarose electrophoresis, negative films obtained, and the films digitally scanned and quantified by area integration according to established procedures (Wang et al., 1995, and references therein). The quantity of target molecules was normalized to the competing mimic and expressed as a function of cDNA synthesized and used in each reaction.

In the claims:

For the convenience of the Examiner, all claims being examined, whether or not amended, are presented below.

Please cancel, without prejudice, claims 29-32.

1. (**Thrice Amended**) An isolated and/or recombinantly produced polypeptide comprising a sequence at least 98 percent identical to either SEQ ID No: 17 or an N-terminal fragment of SEQ ID No: 17 having a molecular weight of about 19 kD, which polypeptide binds to a *patched* protein or promotes proliferation of testicular germ line cells.

2. (**Thrice Amended**) An isolated and/or recombinantly produced polypeptide consisting essentially of a sequence at least 98 percent identical to either SEQ ID No: 17 or an N-terminal fragment of SEQ ID No: 17 having a molecular weight of about 19 kD, which polypeptide binds to a *patched* protein or promotes proliferation of testicular germ line cells.

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3. (**Thrice Amended**) An isolated and/or recombinantly produced polypeptide comprising a sequence identical to either SEQ ID No: 17 or an N-terminal fragment of SEQ ID No: 17 having a molecular weight of about 19 kD, which polypeptide binds to a *patched* protein or promotes proliferation of testicular germ line cells.

4. (**Thrice Amended**) An isolated and/or recombinantly produced polypeptide consisting essentially of a sequence identical to either SEQ ID No: 17 or an N-terminal fragment of SEQ ID No: 17 having a molecular weight of about 19 kD, which polypeptide binds to a *patched* protein or promotes proliferation of testicular germ line cells.

7. (**Reiterated**) The polypeptide of any of claims 1-4, wherein said polypeptide binds to *patched* and promotes *hedgehog* signal transduction.

9. (**Reiterated**) The polypeptide of claim 7, wherein the binding of the polypeptide to *patched* results in upregulation of *patched* and/or *gli* expression.

33. (**Amended**) The polypeptide of any of claims 1-4, formulated in a pharmaceutically acceptable carrier.

34. (**Amended**) The polypeptide of any of claims 1-4, wherein the polypeptide is purified to at least 80% by dry weight.

The amended claims are re-stated below to reflect changes with respect to the last filing.

1. (**Thrice Amended**) An isolated and/or recombinantly produced polypeptide comprising a sequence at least 98 percent identical to either SEQ ID No: 17 or an N-terminal fragment of SEQ ID No: 17 having a molecular weight of about 19 kD, which polypeptide binds to a *patched* protein or promotes proliferation of testicular germ line cells.

2. (**Thrice Amended**) An isolated and/or recombinantly produced polypeptide consisting essentially of a sequence at least 98 percent identical to either SEQ ID No: 17 or an N-terminal fragment of SEQ ID No: 17 having a molecular weight of about 19 kD, which polypeptide binds to a *patched* protein or promotes proliferation of testicular germ line cells.

3. (**Thrice Amended**) An isolated and/or recombinantly produced polypeptide comprising a sequence identical to either SEQ ID No: 17 or an N-terminal fragment of SEQ ID No: 17 having